Course Description

The primary goal of this course is to expose you to the underlying aspects of computer systems that have an impact on application programming. The major topics of this course include linking, exceptions, memory allocation and management, networking, and concurrency. The main programming language for this course is C.

Prerequisites

ELEC 220 and COMP 215

Textbook

Required:

Randal E. Bryant and David R. O'Hallaron. *Computer Systems: A Programmer's Perspective, Third Edition*.

Suggested:

David Griffiths and Dawn Griffiths. *Head First C*.

This is an introductory book that teaches C programming.

Syllabus:

1) Simple Data
2) Arrays and Pointers
3) Structures and Unions
4) Memory Allocation
5) Assembly Language
6) Linking
7) Exceptions, and Advanced Control Flow
8) Dynamic Memory Allocation
9) Virtual Memory
10) System-level I/O
11) Networking
12) Concurrency